

Louisiana
Department of Transportation
And
Development

Traffic Control Standard
Number 22

Revised October 26, 2004

Traffic Control Standard # 22
Pull Box for Traffic Signals
Revised October 26, 2004

The purpose of this specification is to define the minimum material and physical requirements used to manufacture precast traffic signal wiring pull boxes.

The material shall provide high strength with the following minimum properties:

Compressive Strength 11,000 psi
Tensile Strength 1,200 psi
Flexural Strength 2,400 psi
Temperature Range -40 to 140 °F.

Resistance of the material to chemicals shall conform to the defined testing method of ASTM D-543, Section 7. Additional requirements are sunlight resistance and non-flammable, tested in accordance with ASTM G-53 and ASTM D-635, respectively. Material in the finished product shall retain 75% of the values tested on the control specimen. The material supplied shall not have cracks, checks, blisters, or surface pits. Weathering changes shall not affect the sunlight resistance characteristics nor produce an unsightly appearance such as spots or conspicuous color. The color of the finished material shall be of typical concrete/composite gray.

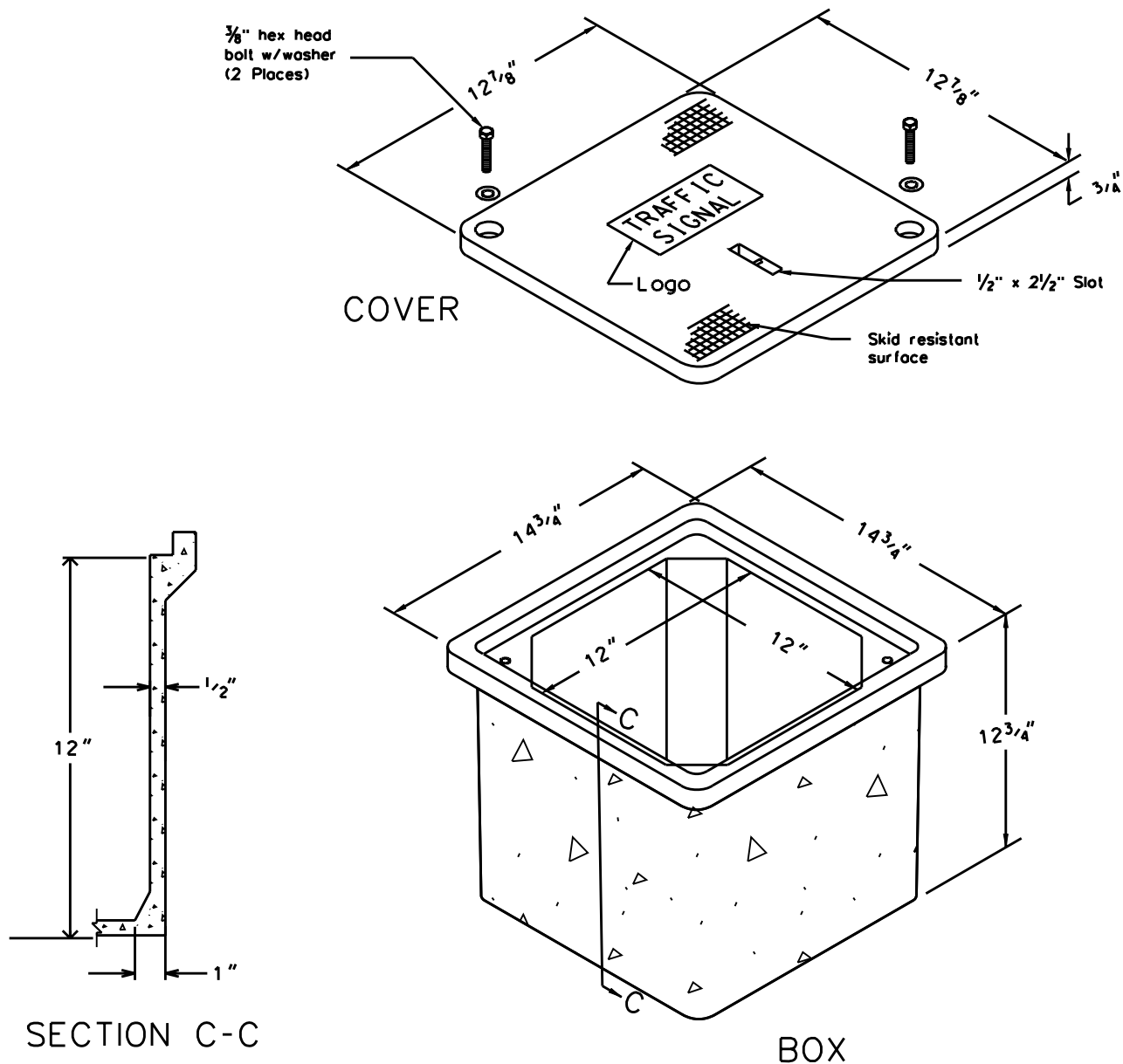
Both the box and cover shall be designed for a static vertical load of 15,000 pounds. A 22,500 pounds vertical test load shall be applied to each over a 10" square area without any part breaking. The box load shall be designed for a lateral load of 800 psf. A 1200 psf test load shall be applied without any part breaking.

Dimensional requirements of the boxes shall be in accordance following table:

Type (Stock #)	Size	Interior Size
	L x W x D	At Foot
D (12-23-1165)	12 x 12 x 12-3/4	11 x 11
E (12-23-1166)	13 x 24 x 12	10-3/4 x 20-1/4
F (12-23-1168)	17 x 30 x 12	14-1/2 x 27-1/2
G (12-23-1170)	24 x 36 x 18	19-1/4 x 29-7/8
H (12-23-1173)	24 x 36 x 36	19-1/4 x 29-7/8
I (12-23-1176)	30 x 48 x 18	25-1/8 x 42-5/8
J (12-23-1178)	30 x 48 x 36	25-1/8 x 42-5/8

A foot area shall be provided around the entire perimeter of the box. The interior of the box shall be hollow. A non-skid surface shall be provided on the top of the cover to prevent a slippery surface when wet or dry. The cover shall be embossed with the legend "Traffic Signal" and be constructed of the same material as the body of the box. Steel or iron material is not acceptable. Stainless steel or brass bolts, washers, and/or inserts shall be provided to secure the cover in place. For additional information see **Figure 1, Figure 2, Figure 3, Figure 4, Figure 5, Figure 6, or Figure 7** for Type "D", "E", "F", "G", "H", "I", or "J" boxes, respectfully.

Technical data indicating compliance with these standards should be accompanied by test documents signed by a registered professional engineer. Detailed technical information, including drawings, etc., on the material being offered should be supplied with the bid. Information should be for all items required by this specification and on the order.



12-23-1165

NOTE:

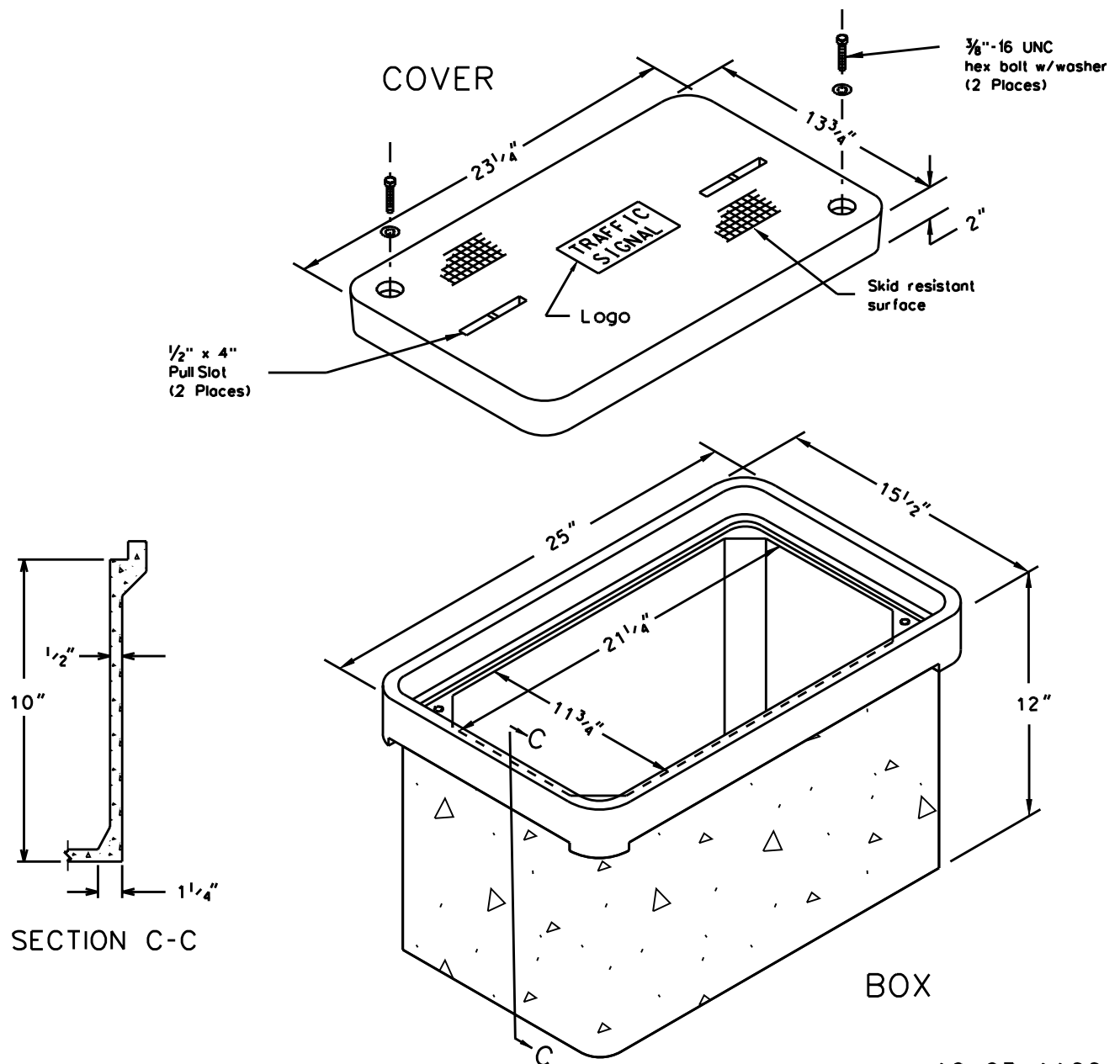
1. Pull box and cover shall be constructed of a concrete composite material.
2. Pull box shall have a hollow base.
3. No "mouse-type" openings shall be present.
4. Box dimensions shown are nominal.
5. See TCS #22 written specifications for more information.

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TYPE "D" PULL BOX for TRAFFIC SIGNALS FIGURE NO. 1

DRAWN BY: MAA

REVISION DATE: 10/26/04



12-23-1166

NOTE:

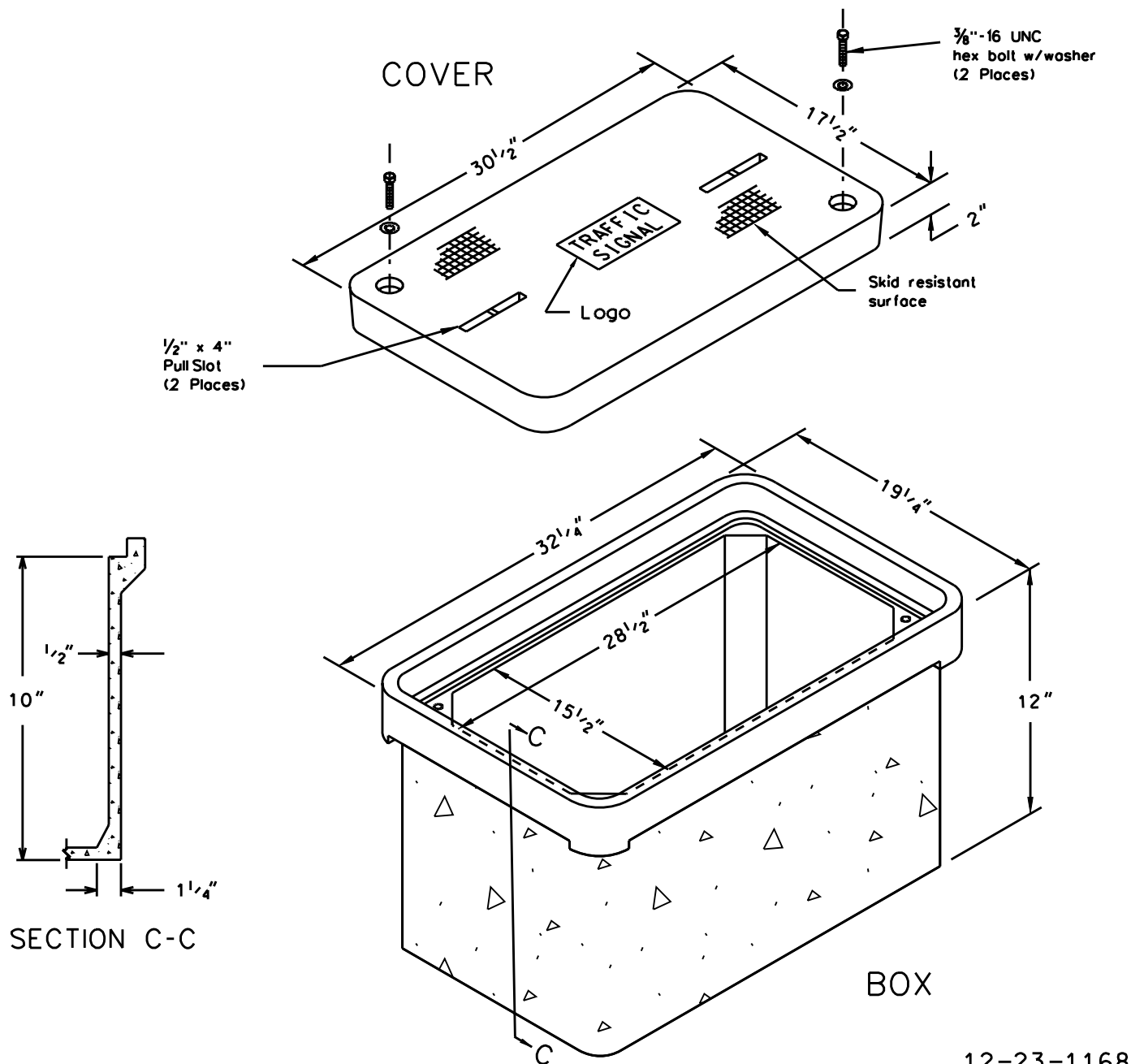
1. Pull box and cover shall be constructed of a concrete composite material.
2. Pull box shall have a hollow base.
3. No "mouse-type" openings shall be present.
4. Box dimensions shown are nominal.
5. See TCS #22 written specifications for more information.

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TYPE "E" PULL BOX for TRAFFIC SIGNALS FIGURE NO. 2

DRAWN BY: MAA

REVISION DATE: 10/26/04

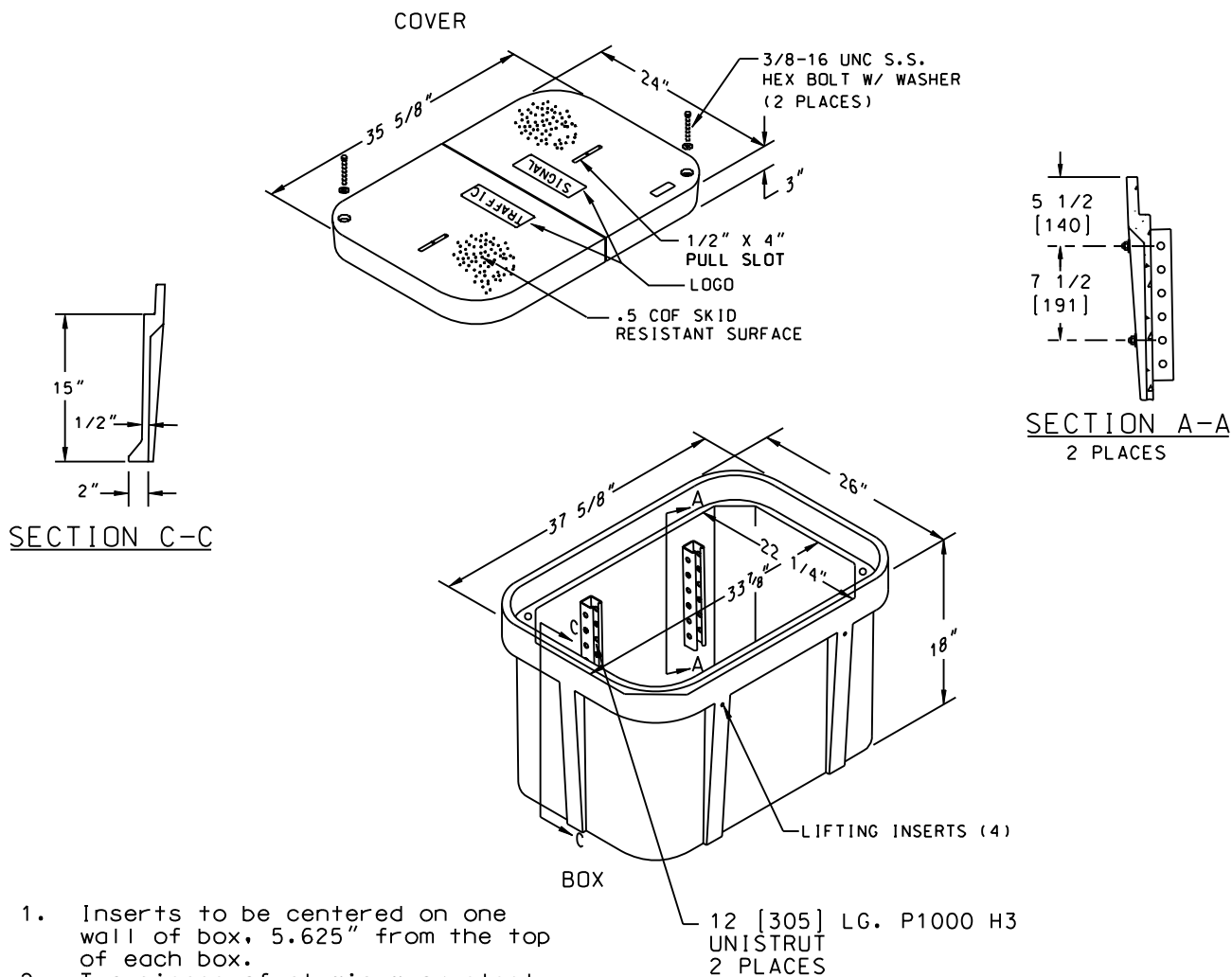


12-23-1168

NOTE:

1. Pull box and cover shall be constructed of a concrete composite material.
2. Pull box shall have a hollow base.
3. No "mouse-type" openings shall be present.
4. Box dimensions shown are nominal.
5. See TCS #22 written specifications for more information.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
 TRAFFIC CONTROL STANDARD NO. 22
 TYPE "F" PULL BOX for TRAFFIC SIGNALS FIGURE NO. 3
 DRAWN BY: MAA REVISION DATE: 10/26/04



1. Inserts to be centered on one wall of box, 5.625" from the top of each box.
2. Two pieces of aluminum or steel pierced channel 11" long to be supplied with each box.
3. Bolts to be 1/2"-13X3/4" long stainless steel. 1/8" spacers to be placed between channels and wall of pull box.
4. Channel racking to be factory installed.

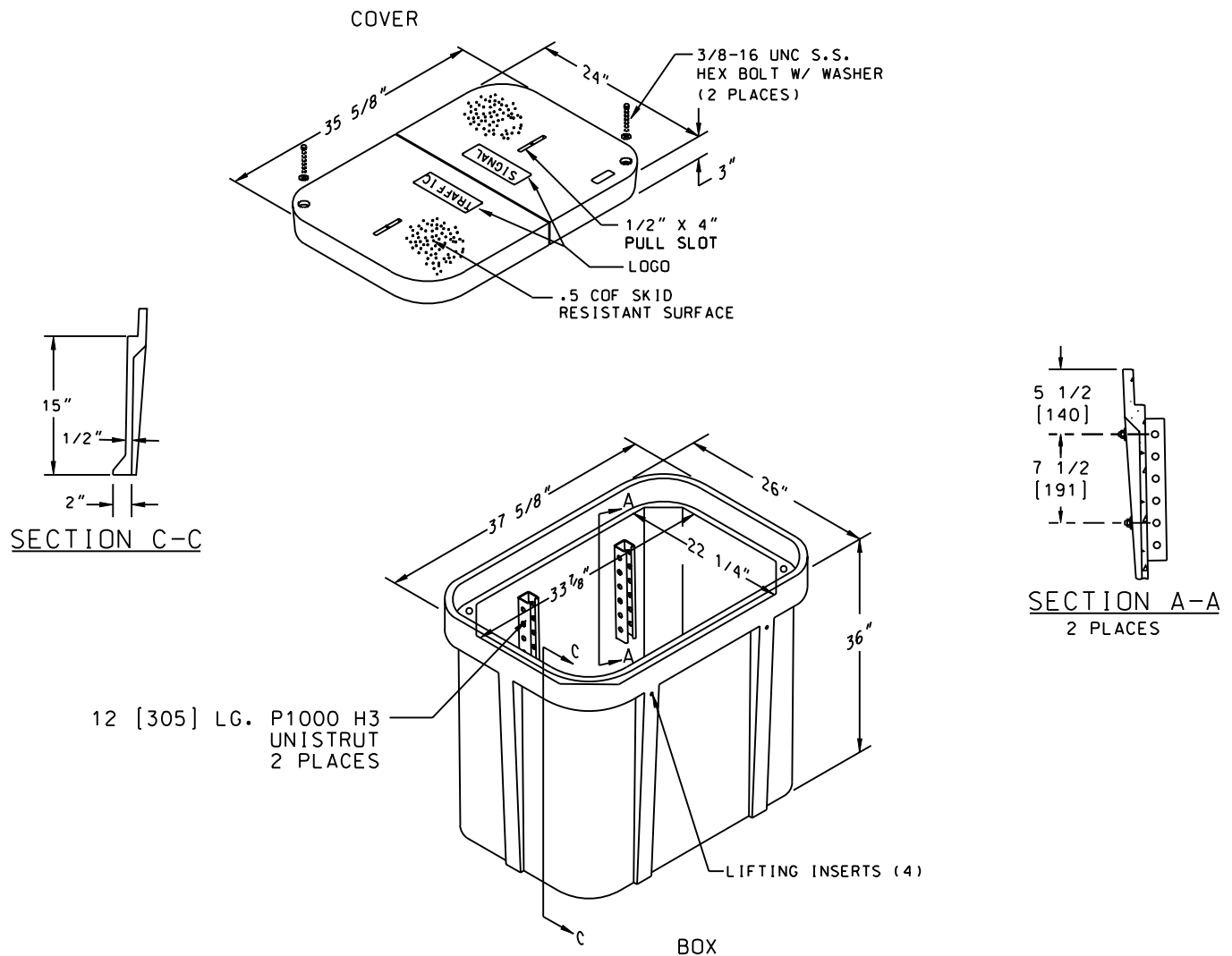
12-23-1170

NOTE:

1. Pull box and cover shall be constructed of a concrete composite material.
2. Pull box shall have a hollow base.
3. No "mouse-type" opening shall be present.
4. Box dimensions shown are nominal.
5. See TCS #22 written specification for more information.

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 TYPE "G" PULL BOX FOR TRAFFIC SIGNALS
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FIGURE NO. 4



1. Inserts to be centered on one wall of box, 5.625" from the top of each box.
2. Two pieces of aluminum or steel pierced channel 11" long to be supplied with each box.
3. Bolts to be 1/2"-13X3/4" long stainless steel. 1/8" spacers to be placed between channels and wall of pull box.
4. Channel racking to be factory installed.

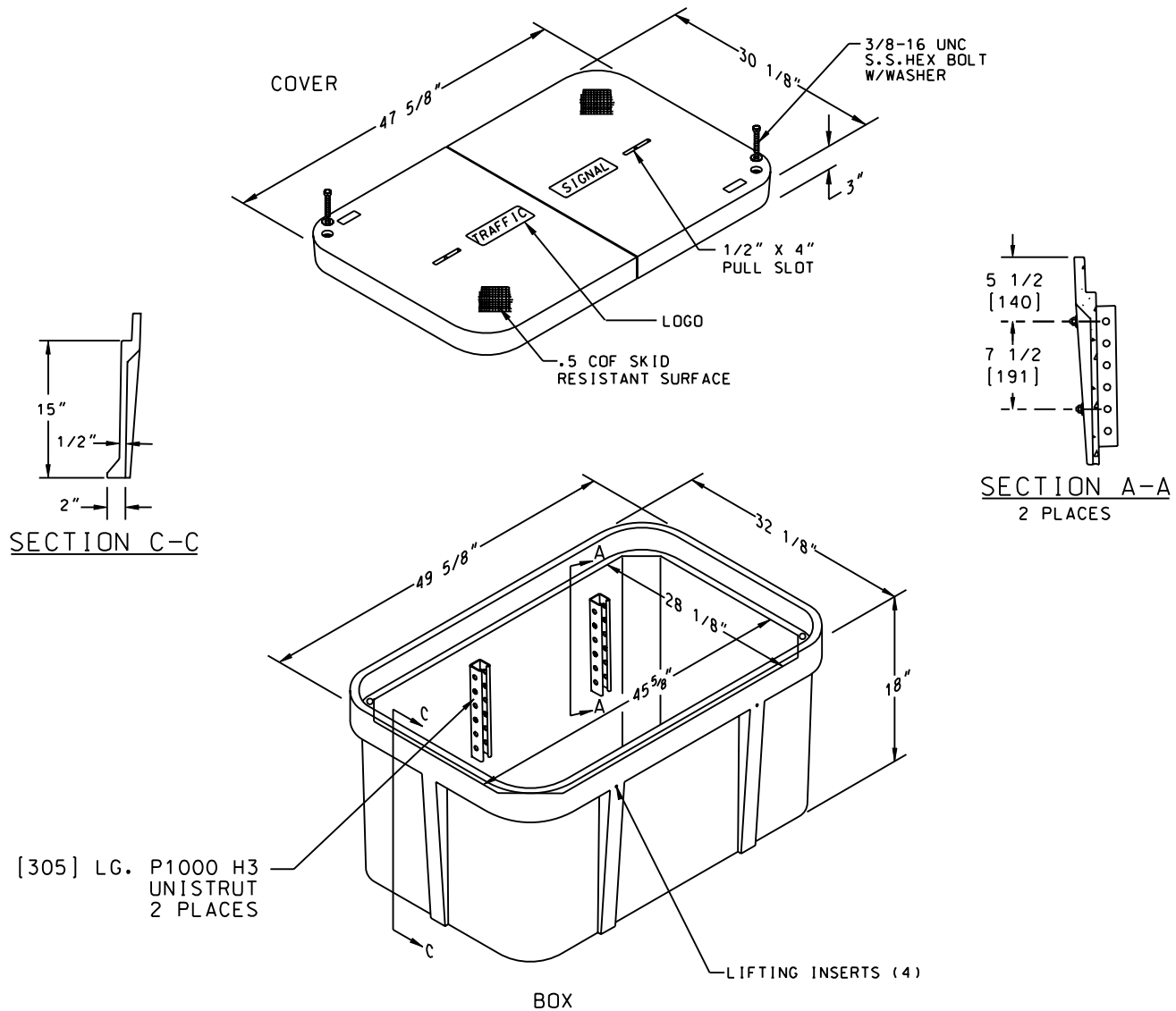
12-23-1173

NOTE:

1. Pull box and cover shall be constructed of a concrete composite material.
2. Pull box shall have a hollow base.
3. Pull box shall have a split top as shown above.
4. No "mouse-type" opening shall be present.
5. Box dimensions shown are nominal.
6. See TCS #22 written specification for more information.

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 TYPE "H" PULL BOX FOR TRAFFIC SIGNALS
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FIGURE NO. 5



1. Inserts to be centered on one wall of box, 5.625" from the top of each box.
2. Two pieces of aluminum or steel pierced channel 11" long to be supplied with each box.
3. Bolts to be 1/2"-13X3/4" long stainless steel. 1/8" spacers to be placed between channels and wall of pull box.
4. Channel racking to be factor installed.

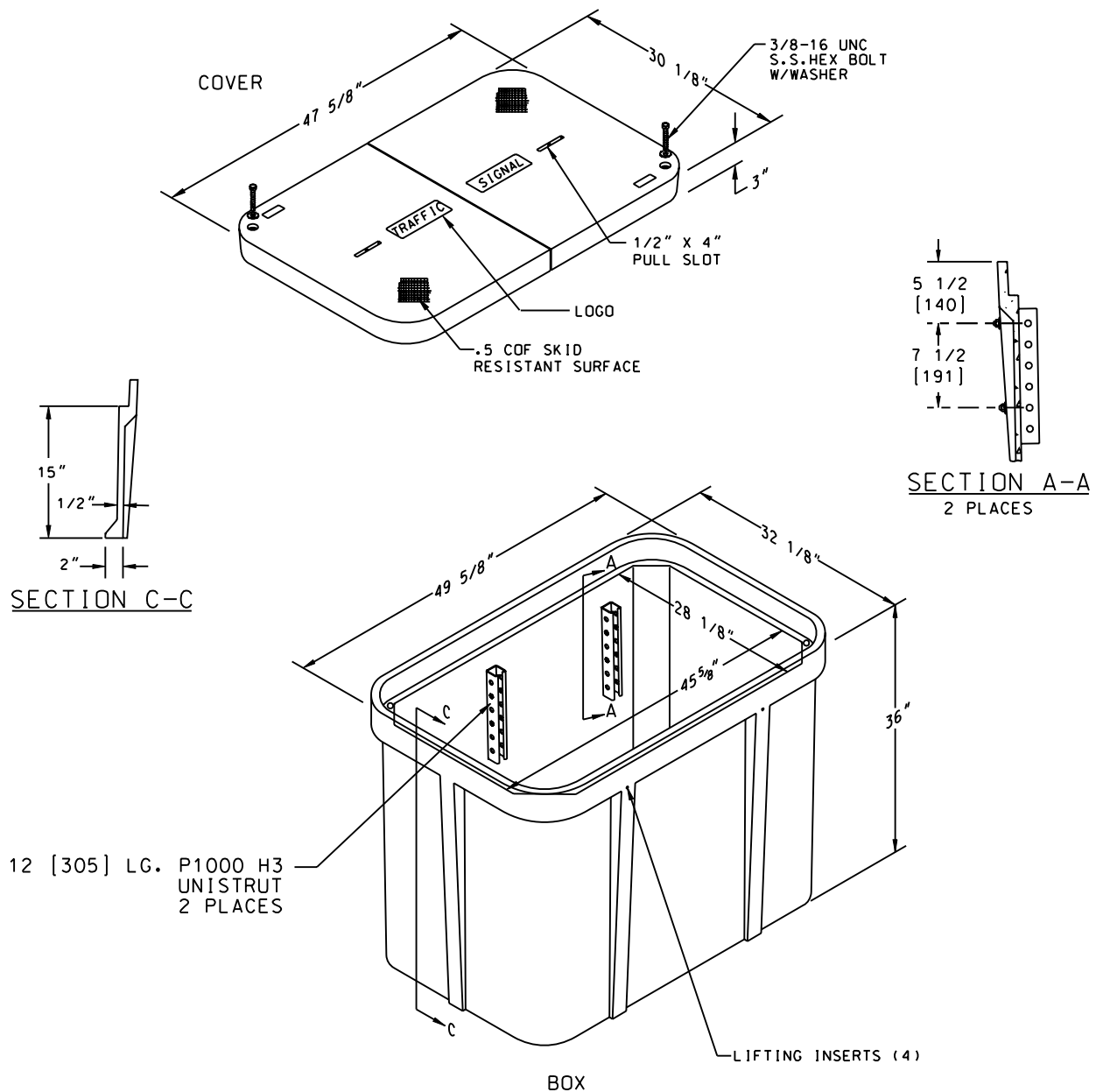
12-23-1176

NOTE:

1. Pull box and cover shall be constructed of a concrete composite material.
2. Pull box shall have a hollow base.
3. Pull box shall have a split top as shown above.
4. No "mouse-type" openings shall be present.
5. Box dimensions shown are nominal.
6. See TCS #22 written specification for more information.

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 TYPE "I" PULL BOX FOR TRAFFIC SIGNALS
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FIGURE NO. 6



1. Inserts to be centered on one wall of box, 5.625" from the top of each box.
2. Two pieces of aluminum or steel pierced channel 11" long to be supplied with each box.
3. Bolts to be 1/2"-13X3/4" long stainless steel. 1/8" spacers to be placed between channels and wall of pull box.
4. Channel racking to be factor installed.

12-23-1178

NOTE:

1. Pull box and cover shall be constructed of a concrete composite material.
2. Pull box shall have a hollow base.
3. Pull box shall have a split top as shown above.
4. No "mouse-type" openings shall be present.
5. Box dimensions shown are nominal.
6. See TCS #22 written specification for more information.

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 TYPE "J" PULL BOX FOR TRAFFIC SIGNALS
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FIGURE NO. 7